

Fully funded PhD assistantships are available in the Urban Atmospheric Chemistry group at the State University of New York College of Environmental Science and Forestry (SUNY ESF). Prospective graduate students who are motivated to study Atmospheric Chemistry are encouraged to directly contact **Dr. Jiajue Chai** (jichai@esf.edu) and arrange 3 recommendation letters ASAP. Application link can be accessed via <https://apply.esf.edu/apply/>. Candidates are expected to start in fall 2024.



Dr. Jiajue Chai's research group (<https://www.esf.edu/faculty/chai/>) is particularly interested in tracking sources, atmospheric processes and sinks of reactive nitrogen species, and quantitatively understanding their implications for air quality, climate, and human and ecosystem health. We bring together a novel set of skills including instrumentation, analytical methods, theory and modeling to investigate atmospheric chemistry in both the laboratory and field. Students in our group will have the opportunity to work collaboratively with many atmospheric researchers across the US and China, and present their research in national and international conferences. Our research is currently funded by the National Science Foundation.

Major research themes

- Stable isotopes composition analysis of reactive nitrogen species in various environments
- Analytical techniques and instrumentation development (Optical Spectroscopy and Mass Spectroscopy)
- Reactive nitrogen cycling in the urban environment
- Wildfire smoke chemistry and its impact on urban air quality
- Indoor air quality

Qualifications: BS or MS in Chemistry, Geochemistry, Atmospheric Science, Environmental Science, Environmental Engineering, or relevant disciplines. Candidates with research experience involving analytical chemistry lab experience, field measurement experience and numerical modeling experience are strongly encouraged to apply. For international students, English qualification is required (TOEFL>80, with no individual component score < 17; IELTS>6.0, with no less than 5 in Writing)

About SUNY ESF: ESF is one of nine Ph.D. granting institutions within the SUNY system, and consistently earns high rankings in US News and World Report, Forbes, Princeton Review, and other national college guidebooks. SUNY ESF is dedicated to solving environmental problems through research, teaching and service. With a total enrollment of 1,700 undergraduates and 600 graduate students, SUNY ESF provides an intimate small-college atmosphere with a low student/faculty ratio that allows for personal attention and assistance for students. Access to chemical instrumentation (<http://www.esf.edu/ats/>) on the campus is excellent. The ESF campus is adjacent to Syracuse University and close to SUNY Upstate Medical University. The Syracuse Veterans Administration Hospital, Upstate Medical University Hospital, Crouse Hospital and Upstate Golisano Children's Hospital are within walking distance from ESF and offer extensive research and collaborative opportunities for health-related projects. The University Hill community provides students and faculty with the resources of large institutions of higher education, including a wide array of courses, computer and library facilities, and sports and health services.

About Syracuse: Located on the eastern edge of the Finger Lakes region, Syracuse is a small city in a rural region offering a diversity of natural and cultural amenities, a low cost of living, and a high quality of life, ranking among the top 10 percent of "Best Places to Live" in "The Places Rated Almanac." Syracuse is situated with easy access to New York City, Boston, the Adirondack Park, the Great Lakes, and many other points of interest in the eastern United States and Canada.